

**What is claimed is:**

1. A method for supporting a measurement of an object to be measured, the method comprises:

entering shape definition data for an object to be measured;

5 generating a contour shape based on the shape definition data;

displaying the contour shape;

entering a measurement part program; and

10 analyzing the measurement part program to obtain a portion to be measured,

wherein at the display step, the portion to be measured is displayed while superimposed on the contour shape.

2. A measurement support method according to claim 1,  
15 further comprising:

analyzing the measurement part program to obtain a travel path,

wherein at the display step, the travel path is displayed while superimposed on the contour shape.

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3. A measurement support method according to claim 2, further comprising:

checking an interference portion between the portion to be measured or the travel path, and the contour shape,

25 wherein at the display step, the interference portion is displayed while superimposed on the contour shape.

4. A measurement support method according to claim 1,  
further comprising:

correcting the measurement part program based on results  
obtained by correcting the portion to be measured which is  
5 displayed.

5. A measurement support method according to claim 2,  
further comprising:

correcting the measurement part program based on results  
10 obtained by correcting the travel path that is displayed.

6. A measurement support method according to claim 3,  
further comprising:

correcting the portion to be measured or the travel path  
15 based on the interference portion to eliminate the interference  
portion; and

correcting the measurement part program based on the  
elimination of the interference portion.

20 7. A measurement support method according to claim 1,  
further comprising:

converting design data into shape definition data for  
the object to be measured.

25 8. A measurement support method according to claim 1,  
further comprising:

generating at least one of coordinate axes and a coordinate

origin by employing the measurement part program or the shape definition data,

wherein at the display step, at the least one of the coordinate axes and the coordinate origin that is generated  
5 is displayed while superimposed on the contour shape.

9. A measurement support method according to claim 1, further comprising:

generating coordinate scale based on the measurement part  
10 program or the shape definition data,

wherein at the display step, the coordinate scale that is generated is displayed while superimposed on the contour shape.

15 10. A measurement support method according to claim 1, further comprising:

displaying the measurement part program with the contour shape; and

selecting a measurement instruction included in the  
20 measurement part program that is displayed,

wherein at the step of calculating the portion to be measured, a portion corresponding to the selected measurement instruction is highlighted and output.

25 11. A measurement support method according to claim 2, further comprising:

displaying the measurement part program and the contour

shape at the same time; and

selecting a movement instruction included in the  
measurement part program that is displayed,

wherein at the step of calculating the travel path, a  
5 travel path corresponding to the selected movement instruction  
is highlighted and output.

12. A measurement support method according to claim 1,  
wherein the shape definition data for the object to be measured  
10 includes at least one unit element of a zero-dimensional element,  
which is a point, a one-dimensional element, which is a line  
segment, or a two-dimensional element, which includes an arc.

13. A measurement support method according to claim 12,  
15 wherein the shape definition data of the object to be measured  
further includes an expansion element for the rotation of the  
unit element or for the parallel movement of the unit element.

14. An apparatus for supporting a measurement of an object  
20 to be measured, the apparatus comprising:

a shape definition data input section for entering shape  
definition data for an object to be measured;

a contour shape generator for generating a contour shape  
based on the shape definition data;

25 a measurement part program input section for entering  
a measurement part program;

an analyzer for analyzing the measurement part program

and outputting analysis results;

a synthesizer for synthesizing the analysis results with the contour shape; and

a display unit for displaying a synthesized image obtained  
5 based on the synthesis results.

15. A measurement support apparatus according to claim 14, further comprising:

a corrector for correcting the synthesized image that  
10 is displayed; and

a corrected measurement part program output section for correcting the measurement part program based on the corrected synthesized image and outputting the corrected measurement part program.

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